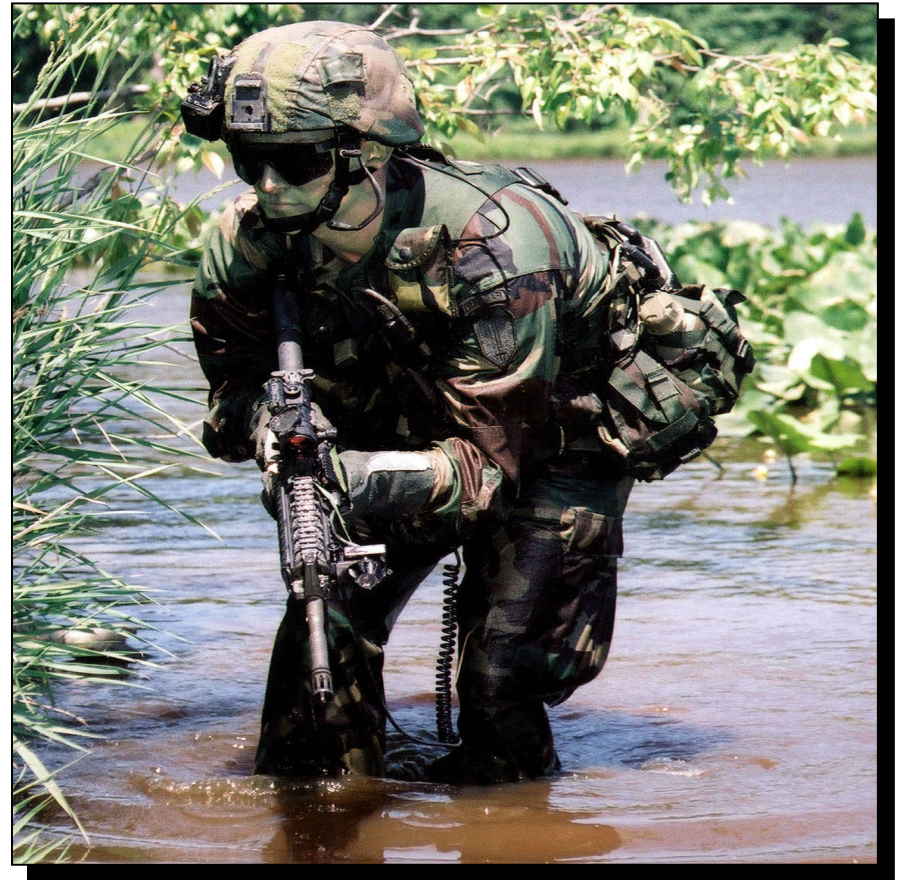
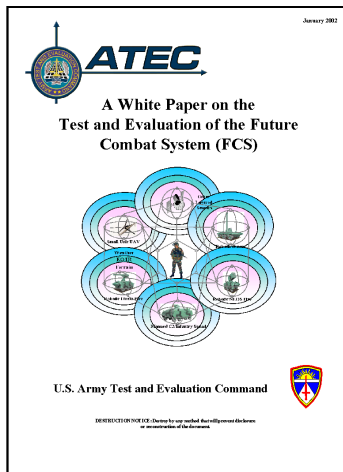


# *Test and Evaluation in Support of Army Transformation*



## *Quality Control for the US Army*

**Army Test and Evaluation Command**



# Purpose

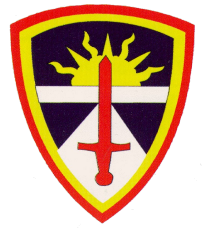


To describe a successful strategy for the Army's test and evaluation program for FCS, which:

- Avoids the pitfalls of the past
- Challenges the program
- Minimizes risk
- Moves FCS forward



# Facts



- In order to acquire FCS, the ARMY must prove the System of Systems Effective, Suitable, and Survivable.
- In order to prove the above, the FCS must be Effective, Suitable, and Survivable.



# A New Acquisition Paradigm



Development

Transition

Procurement

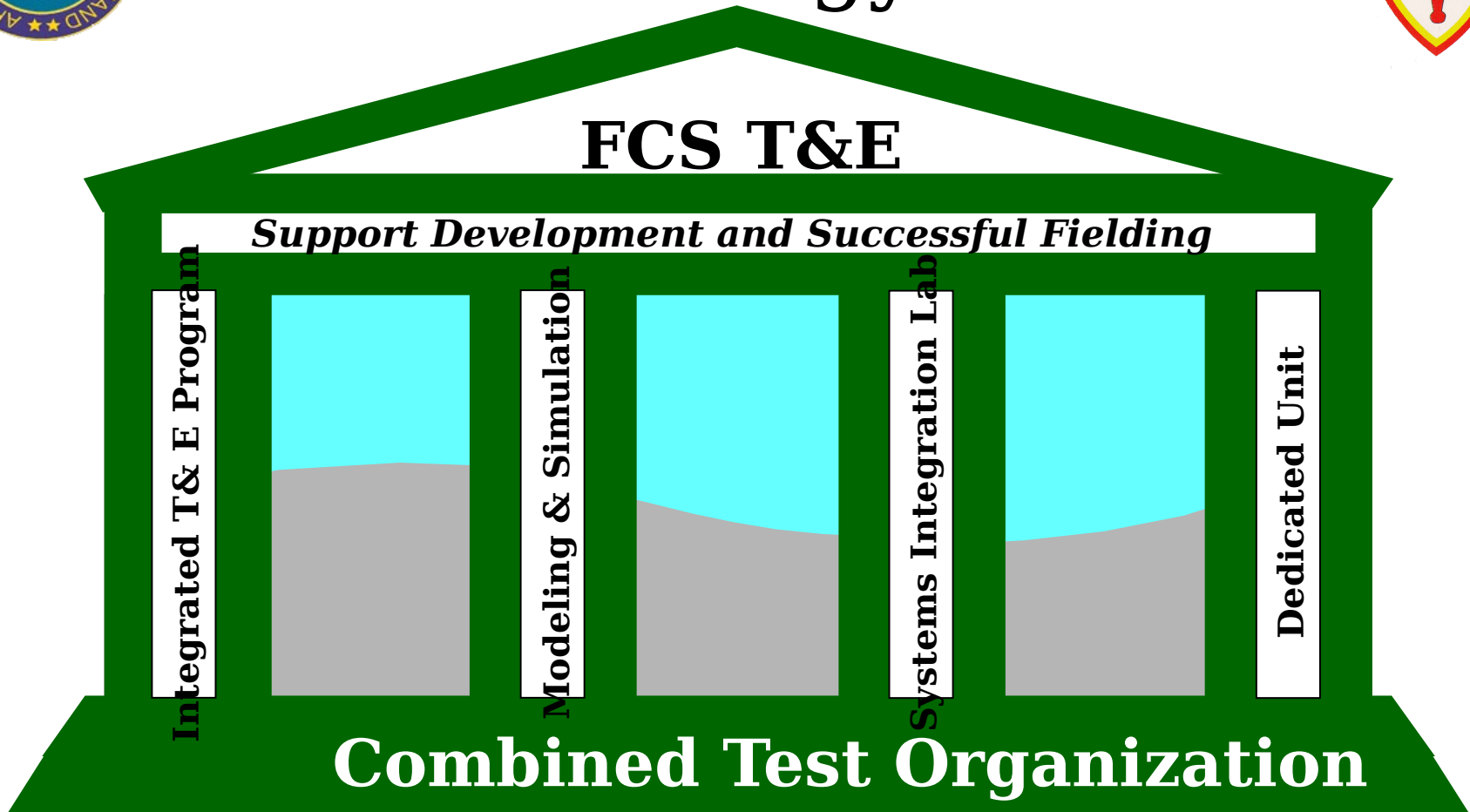
← Total Acquisition Time →

$$DT_{\text{Optimized}} = \int_{2002}^{2009} (\text{CT, GT, Exp., Analysis, LFT\&E, M\&M})$$

**To minimize transition time, the Army must optimize developmental testing**



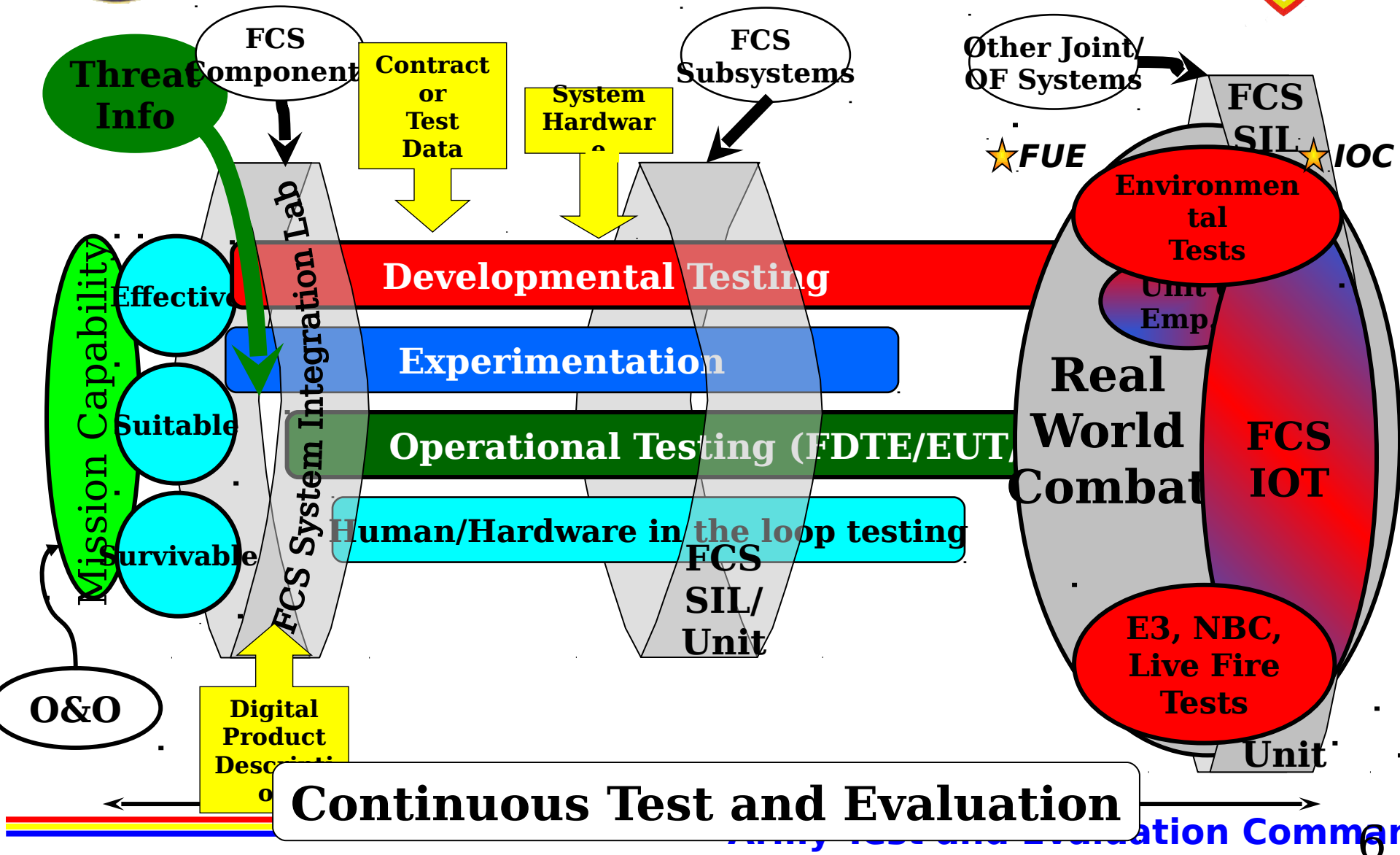
# A T&E Strategy for FCS



**An appropriate T&E program is essential to mitigate program risks**



# Integrated T&E Program

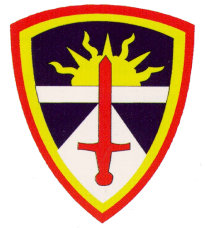








# Combined Test Facility

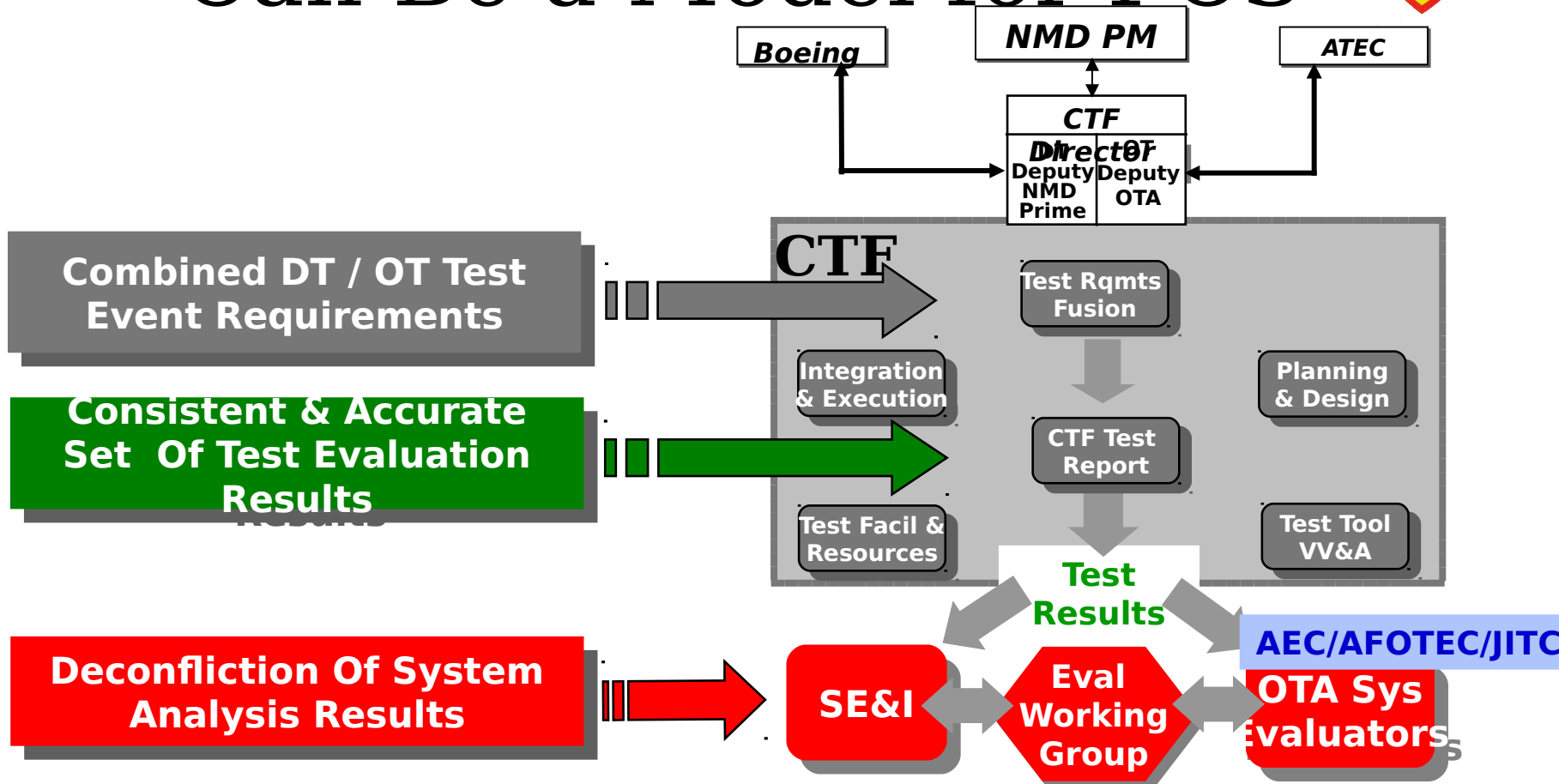


- A truly integrated test and evaluation program synchronizes the efforts of the contractor, program manager, and government tester
- GMD has pioneered this concept through its Combined Test Facility (CTF)
- FCS should exploit this model





# GMD CTF Model Can Be a Model for FCS



- CTF Test Requirements Fusion WG Produces Combined DT / OT Test Rqmts
- CTF Test Evaluation Team Produces Accurate & Consistent Test Eval Results
- Analysis Working Group Provides Deconfliction Of Systems Analysis



# Modeling & Simulation

Virtual Environment Interim Systems

Comanche

Crusader

**Architecture**

Legacy Systems Joint Systems NATO/Coalition Systems

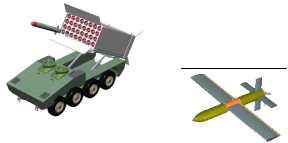
From **Constructive** to **Virtual** to **Live**



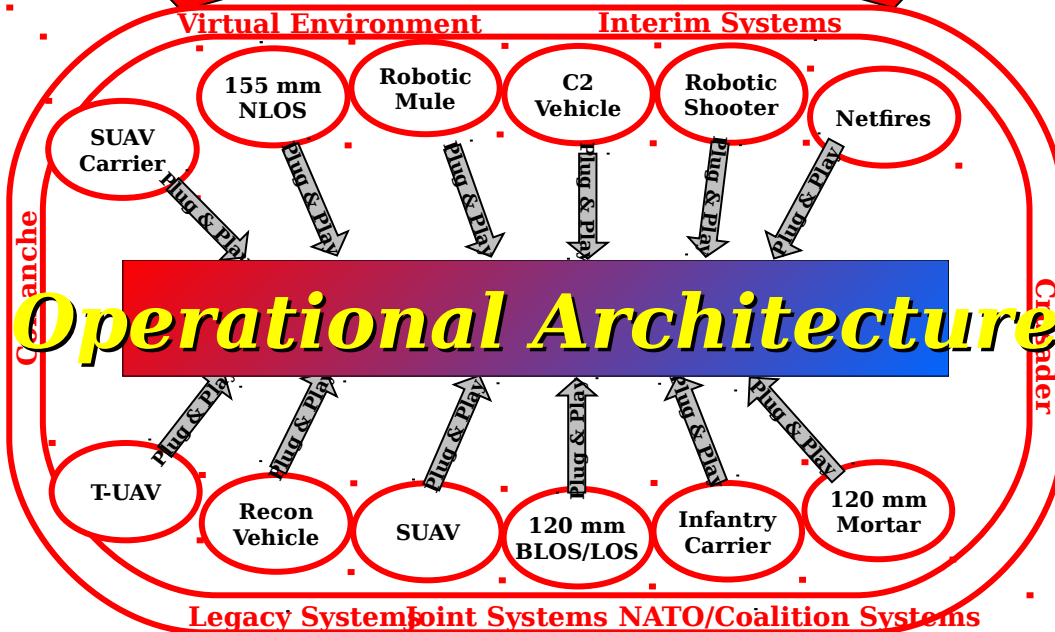
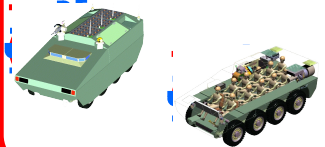
# Systems Integration Lab



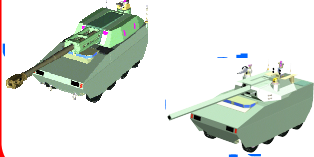
LSI Sub-Contractor SIL



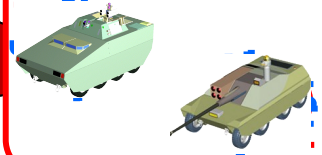
LSI Sub-Contractor SIL



LSI Sub-Contractor SIL



LSI Sub-Contractor SIL



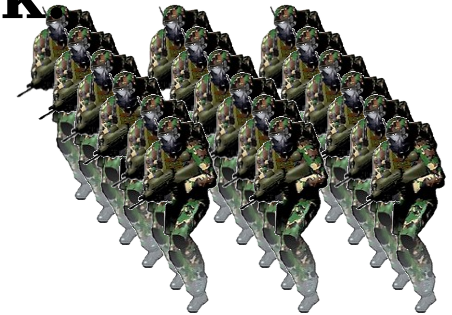
**SIL provides common set of analytic tools**



# Dedicated Unit



**Everyone needs soldier feedback:**



- TTP Development
- Experimentation
- Organization Design

- User Juries
- Design & Development
- Early User Input

- Soldiers for DT
- EUT
- LUT
- IOTE

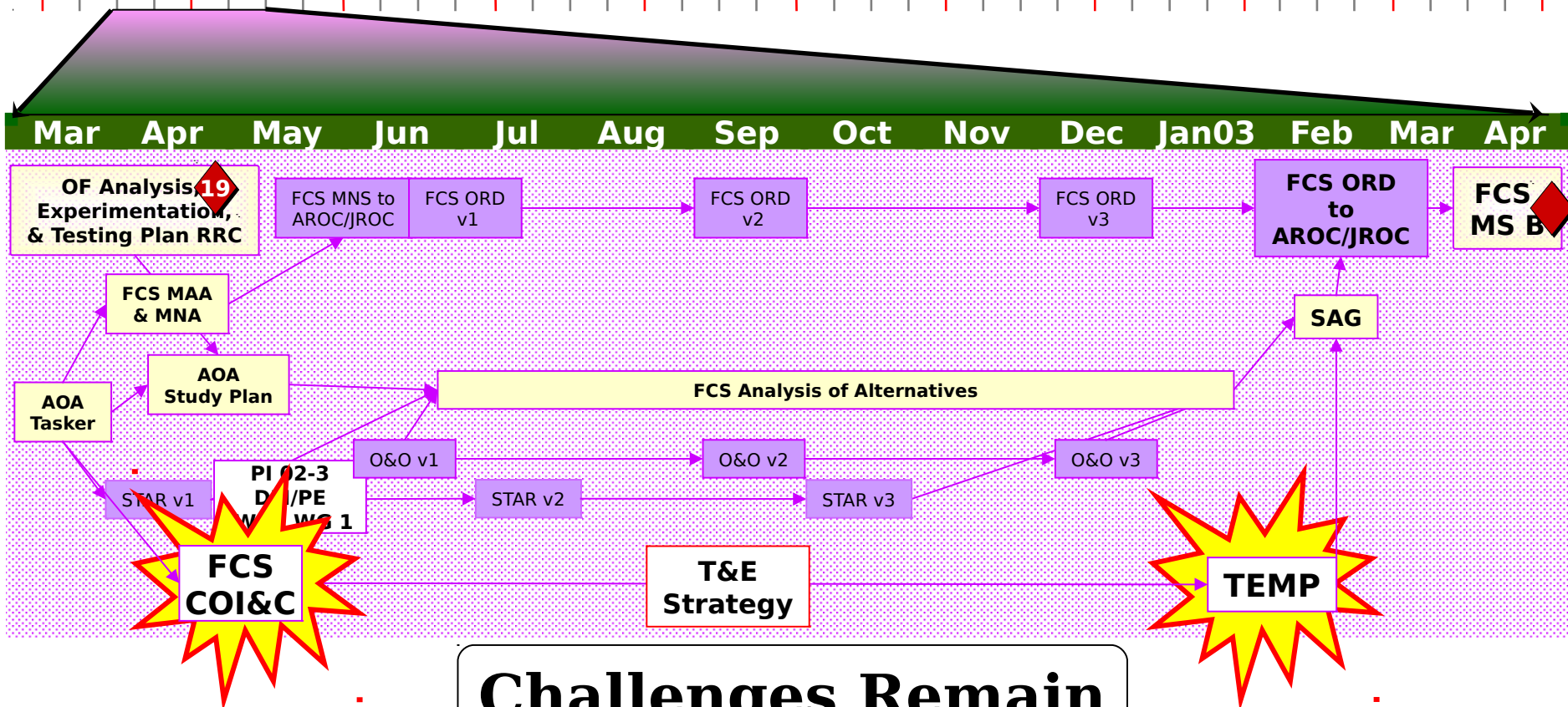
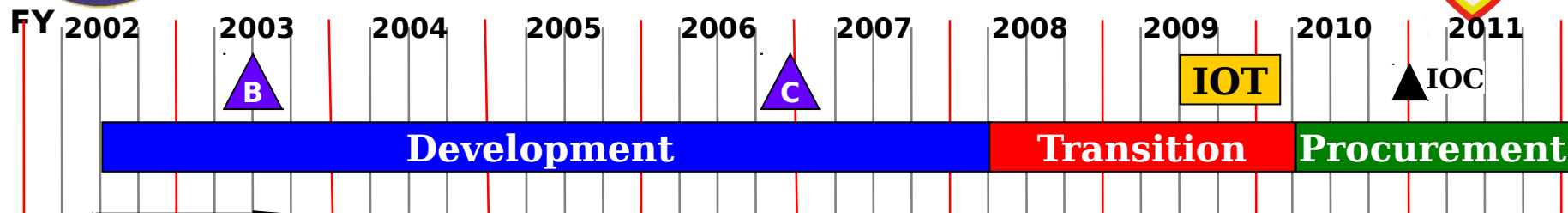
## Options

- TSARC
- Dedicated BCT
- National Guard
- NTC OPFOR
- FUE

**Accelerated development and fielding  
through continuous user feedback**



# The Close Fight



**Challenges Remain**



# Summary



## Task   Responsible   Suspense

### 1. Integrated T&E

- Create a Combined Test Organization      PM, LSI, ATEC      May 02
- Publish T&E Strategy      ATEC      Aug 02
- Publish TEMP      PM      Mar 03

### 2. Support M&S development

- Create M&S Czar      PM
- Identify M&S requirements for T&E      ATEC
- Coordinate M&S plans      ATEC, LSI, PM      Aug 02
- Fund M&S      G-8      Jun 02

### 3. Systems Integration Labs

- Coordinate T&E use of SIL      ATEC, LSI      Aug 02

### 4. Dedicated unit

- Approve requirement      CSA      May 02

